

LISTING OF CLAIMS:

1. (currently amended) A method for ensuring the integrity of ~~at least one computer software program~~ a plurality of computer software programs which can be carried out by means of at least one encryption/decryption module, the ~~at least one computer software program~~ plurality of computer software programs being transmitted, by means of a transmitter, to a decoder which is equipped with the at least one encryption/decryption module by means of a long-distance information transmission network, the transmitter performing the steps comprising:

a) a step (40) for encrypting information signals transmitted to the decoder,

b) a step (50) for transmitting, to the at least one encryption/decryption module of the decoder, a message containing the information required for the decoder to decrypt the information signals transmitted at step a), and

c) a step (42, 100) for transmitting the ~~at least one computer software program~~ plurality of computer software programs to the at least one encryption/decryption module of the decoder,

the decoder carrying out:

d) a step (74) for decrypting the information signals transmitted by the transmitter during step a) using the information provided for this purpose in the message transmitted during step b),

e) a step for constructing a single identifier for ~~a group of several~~ the plurality of computer software programs to be transmitted during step c) based on information relating to each of the computer software programs of the ~~group plurality of~~ computer software programs and in that the at least one encryption/decryption module carries out the same operation as that carried out during step e) in order to reconstruct a unique identifier corresponding to that constructed during step e) upon ~~if~~ the plurality of computer software programs ~~group~~ received by the decoder being ~~is~~ identical to that transmitted by the transmitter,

wherein,

the transmitter inserts (at 52, 124) in the message transmitted during step b) an additional item of information which allows the at least one encryption/decryption module to verify that it has effectively received ~~the or each~~ computer software program transmitted at step c),

the at least one encryption/decryption module verifies (at 60), based on the additional information inserted by the transmitter in the message transmitted during step b), whether it has effectively received ~~the or each~~ computer software program of the plurality of computer software programs transmitted during step c), and

upon if the or each software program of the plurality  
of computer software programs having ~~has~~ not been received, the  
at least one encryption/decryption module prevents step d) (at  
68).

2. (previously presented) The method according to  
claim 1, wherein the transmitter encrypts (at 50) the message  
transmitted at step b), and in that the at least one  
encryption/decryption module decrypts the message transmitted  
during step b) in order to allow step d) to be carried out.

3. (currently amended) The method according to  
claim 1, wherein the transmitter carries out:

f) a step (52, 124) for inserting this identifier in  
the message transmitted during step b),

and in that the at least one encryption/decryption  
module carries out:

g) a step (62, 110) for reconstructing the identifier  
of ~~the or~~ each computer software program based on ~~the or~~ each  
computer software program of the plurality of computer software  
programs received,

h) a step (66, 112) for comparing the identifier  
reconstructed at step g) with the identifier inserted by the  
transmitter during step f), and

i) upon if the identifier reconstructed at step g) ~~does~~ not corresponding ~~correspond~~ to that inserted at step f) in the message transmitted at step b), a step (68, 108) for preventing step d),

j) upon if the identifier reconstructed at step g) corresponding ~~corresponds~~ to the identifier inserted at step f) in the message transmitted during step b), a step (66, 112) for validating the integrity of ~~the or~~ each computer software program of the plurality of computer software programs.

4. (cancelled)

5. (previously presented) The method according to claim 3, wherein the steps d), g), h), i) and j) are carried out by the same encryption/decryption module.

6. (previously presented) The method according to claim 3, wherein a first autonomous encryption/decryption module carries out only steps d), h), i) and j), and in that a second autonomous encryption/decryption module which is independent from the first encryption/decryption module and which is fixedly joined to the decoder carries out at least step g).

7. (currently amended) A method for ensuring the integrity of a plurality of computer software programs which can be carried out by means of at least one encryption/decryption module, the plurality of computer software programs being transmitted, by means of a transmitter, to a decoder which is equipped with the at least one encryption/decryption module by means of a long-distance information transmission network, the transmitter performing the steps comprising:

a) a step (40) for encrypting information signals transmitted to the decoder,

b) a step (50) for transmitting, to the at least one encryption/decryption module of the decoder, a message containing the information required for the decoder to decrypt the information signals transmitted at step a), and

c) a step (42, 100) for transmitting the plurality of computer software programs to the at least one encryption/decryption module of the decoder,

the decoder carrying out:

d) a step (74) for decrypting the information signals transmitted by the transmitter during step a) using the information provided for this purpose in the message transmitted during step b),

e) a step for constructing a single identifier for the plurality of computer software programs to be transmitted during step c) based on information relating to each of the computer software programs of the plurality of computer software programs and in that the at least one encryption/decryption module carries out the same operation as that carried out during step e) in order to reconstruct a unique identifier corresponding to that constructed during step e) upon the plurality of computer software programs received by the decoder being identical to that transmitted by the transmitter,

f) a step (52, 124) for inserting this identifier in the message transmitted during step b),

and in that the at least one encryption/decryption module carries out:

g) a step (62, 110) for reconstructing the identifier of each computer software program based on each computer software program of the plurality of computer software programs received,

h) a step (66, 112) for comparing the identifier reconstructed at step g) with the identifier inserted by the transmitter during step f), and

i) upon the identifier reconstructed at step g) not corresponding to that inserted at step f) in the message transmitted at step b), a step (68, 108) for preventing step d),

j) upon the identifier reconstructed at step g)  
corresponding to the identifier inserted at step f) in the  
message transmitted during step b), a step (66, 112) for  
validating the integrity of each computer software program of the  
plurality of computer software programs~~The method according to~~  
~~claim 6, wherein,~~

the transmitter inserts (at 52, 124) in the message  
transmitted during step b) an additional item of information  
which allows the at least one encryption/decryption module to  
verify that it has effectively received each computer software  
program transmitted at step c),

the at least one encryption/decryption module verifies  
(at 60), based on the additional information inserted by the  
transmitter in the message transmitted during step b), whether it  
has effectively received each computer software program  
transmitted during step c), and

upon each software program of the plurality of computer  
software programs having not been received, the at least one  
encryption/decryption module prevents step d) (at 68),

a first autonomous encryption/decryption module carries  
out only steps d), h), i) and j), and in that a second autonomous  
encryption/decryption module which is independent from the first  
encryption/decryption module and which is fixedly joined to the  
decoder carries out at least step g), and

wherein the transmitter further performing the steps comprising:

k) a second step (120) for constructing a second identifier of ~~the or~~ each computer software program transmitted during step c), this second identifier being transmitted together with ~~the or~~ each corresponding computer software program during step c), and

- ~~in that~~ step g) which is carried out by the second encryption/decryption module comprises:

- an operation (102) for reconstructing the second identifier which is transmitted together with ~~the or~~ each computer software program,

- only ~~if~~ upon the second reconstructed identifier corresponding ~~corresponds~~ to that transmitted together with ~~the or~~ each software program of the plurality of computer software programs during step c), an operation (110) for reconstructing the first identifier inserted in the message transmitted during step b) and for transmitting this first reconstructed identifier to the first encryption/decryption module so that the first encryption/decryption module can carry out step h).



8. (currently amended) The method according to claim 7, wherein the first and the second identifiers are obtained from the same identifier of ~~the or~~ each computer software program of the plurality of computer software programs by encrypting the same identifier using a different first and second encryption key, respectively.

9. (currently amended) The method according to claim 2, wherein the at least one encryption/decryption module carries out the ~~at least one computer software program~~ plurality of computer software programs each time the integrity thereof is validated during step j).

10. (previously presented) An information recording medium (12) with a computer program recorded thereon comprising instructions for carrying out a method according to claim 1, when the instructions are carried out by the transmitter (4).

11. (previously presented) An information recording medium (22, 88) with a computer program recorded thereon comprising instructions for carrying out a method according to claim 1, when the instructions are to be carried out by the at least one encryption/decryption module.

12. (currently amended) A system for ensuring the integrity of ~~at least one computer software program~~ plurality of computer software programs which can be carried out by at least one encryption/decryption module (16, 84), the system comprising:

a transmitter (4) for transmitting the ~~at least one computer software program~~ plurality of computer software programs via a long-distance information transmission network (8), and a decoder (6, 82) which is equipped with the at least one encryption/decryption module (16, 84),

the transmitter (4) being capable of:

- encrypting information signals transmitted to the or each decoder,

- transmitting to the at least one encryption/decryption module of the decoder a message containing the information required for the decoder to decrypt the information signals transmitted, and

- transmitting the ~~at least one computer software program~~ plurality of computer software programs to the at least one encryption/decryption module of the decoder,

- the decoder (6, 82) being capable of decrypting the information signals transmitted by the transmitter using the information which is provided for this purpose and which is contained in the message transmitted by the transmitter,

- constructing a single identifier for ~~a group of several~~ the plurality of computer software programs to be transmitted during the transmitting the ~~at least one computer software program~~ plurality of computer software programs to the at least one encryption/decryption module of the decoder based on information relating to each of the computer software programs of the ~~group~~ plurality of computer software programs and in that the at least one encryption/decryption module carries out the same operation as that carried out during ~~constructing~~ construction in order to reconstruct a unique identifier corresponding to that constructed during ~~constructing~~ construction ~~if the group~~ upon the plurality of computer software programs received by the decoder being ~~is~~ identical to that transmitted by the transmitter,

wherein, the transmitter (4) is capable of inserting in the message an additional item of information which allows the at least one encryption/decryption module (46, 84) to verify that it has received ~~the or each~~ computer software program of the plurality of computer software programs transmitted,

the at least one encryption/decryption module (16, 84) is capable of verifying, based on the additional information inserted by the transmitter in the message, whether it has effectively received ~~the or each~~ computer software program of the plurality of computer software programs transmitted by the transmitter, and

upon if the or each computer software program of the plurality of computer software programs having ~~has~~ not been received, the at least one encryption/decryption module (16, 84) is capable of preventing the decryption of the information signals transmitted.

13. (previously presented) The system according to claim 12, wherein the or each decoder (6) is equipped with a single removable encryption/decryption module.

14. (previously presented) The system according to claim 12, wherein the or each decoder (82) is equipped with at least two autonomous encryption/decryption modules which are independent from each other, at least one of these encryption/decryption modules being fixedly joined to the body of the decoder.

15. (currently amended) A transmitter (4) which is suitable for carrying out a method according to claim 1, this transmitter (4) being capable of:

- encrypting information signals transmitted to the or each decoder,

- transmitting to the at least one encryption/decryption module of the decoder a message containing the information required for the decoder to decrypt the information signals transmitted, and

- transmitting ~~the at least one computer software program~~ plurality of computer software programs to the at least one encryption/decryption module of the decoder,

wherein

the transmitter (4) is capable of inserting in the message an additional item of information which allows the at least one encryption/decryption module (46, 84) to verify that it has received ~~the or~~ each computer software program transmitted.

16. (currently amended) A ~~The~~ decoder (6, 82) which is suitable for carrying out a method according to claim 1, this decoder (6, 82) being capable of decrypting the information signals transmitted by the transmitter using the information which is provided for this purpose and which is contained in the message transmitted by the transmitter, and being equipped with the at least one encryption/decryption module (16, 84);

wherein,

the at least one encryption/decryption module (16, 84) is capable of verifying, based on the additional information inserted by the transmitter in the message, whether it has effectively received ~~the or each~~ computer software program of the plurality of computer software programs transmitted by the transmitter, and

upon if the or each software program of the plurality of computer software programs having ~~has~~ not been received, the at least one encryption/decryption module (16, 84) is capable of preventing the decryption of the information signals transmitted.

17. (previously presented) The decoder (6, 82) according to claim 16, wherein the decoder is equipped with a single removable encryption/decryption module.

18. (previously presented) The decoder (6, 82) according to claim 16, wherein the decoder is equipped with at least two autonomous encryption/decryption modules which are independent from each other, at least one of these encryption/decryption modules being fixedly joined to the body of the decoder.

19. (currently amended) The method according to claim 2, wherein the transmitter carries out:

f) a step (52, 124) for inserting this identifier in the message transmitted during step b),

and in that the at least one encryption/decryption module carries out:

g) a step (62, 110) for reconstructing the identifier of ~~the or~~ each computer software program of the plurality of computer software programs based on ~~the or~~ each computer software program received,

h) a step (66, 112) for comparing the identifier reconstructed at step g) with the identifier inserted by the transmitter during step f), and

i) if the identifier reconstructed at step g) does not correspond to that inserted at step f) in the message transmitted at step b), a step (68, 108) for preventing step d),

j) if the identifier reconstructed at step g) corresponds to the identifier inserted at step f) in the message transmitted during step b), a step (66, 112) for validating the integrity of ~~the or~~ each computer software program of the plurality of computer software programs.

20.(currently amended) The method ~~Method~~ according to claim 1, wherein a first autonomous encryption/decryption module carries out only steps d), h), i) and j), and in that a second autonomous encryption/decryption module which is independent from the first encryption/decryption module and which is fixedly joined to the decoder carries out at least step g).